

UNITED STATES MARINE CORPS
LOGISTICS OPERATIONS SCHOOL
MARINE CORPS COMBAT SERVICE SUPPORT SCHOOLS
TRAINING COMMAND
PSC BOX 20041
CAMP LEJUNE, NORTH CAROLINA 28542-0041

B102

STUDENT OUTLINE

CHARACTERISTICS OF MARINE CORPS EQUIPMENT

LEARNING OBJECTIVES

1. Terminal Learning Objective: Given Supplies and equipment to be embarked, necessary tools, equipment, and material, information concerning the type of ship, aircraft, or conveyance to be used and the references, prepare supplies and equipment for embarkation to ensure compliance with the requirements of the specific type of ship, aircraft, or conveyance to be used. (0431.04.01)
2. Enabling Learning Objective:
 - a. Given references, a picture of a specific piece of Marine Corps Motor Transport, Engineer, or Aviation equipment, identify equipment characteristics in accordance with the references. (0431.04.01b)
 - b. Given a picture of a specific piece of Marine Corps Motor Transport, Engineer, or Aviation equipment choose the Table of Authorized Material Control Number (TAMCN) of the equipment in accordance with the references. (0431.04.01k)
 - c. Given a picture of a specific piece of Marine Corps Motor Transport, Engineer, or Aviation equipment, choose the model number of the equipment in accordance with the references. (0431.04.01l)
 - d. Given a picture of a specific piece of Marine Corps Motor Transport, Engineer, or Aviation equipment, choose the purpose of the equipment in accordance with the references. (0431.04.01m)

e. Given reference material, employ publications, terms and documents concerning Marine Corps equipment as they relate to transportation in accordance with the references. (0431.04.01a)

OUTLINE

1. TERMS:

a. Bulk Cargo. Any cargo that does not exceed the usable dimensions of a 463L pallet: 84 X 104 inches.

b. Oversize Cargo. Any cargo that is larger than the working surface of the 463L pallet: 84 X 104 X 96 inches.

c. Outsized Cargo. All cargo because of its physical characteristics exceeds the capabilities (too large or too heavy) of the C-130, C-141B, or KC-10 aircraft and requires a C-5 or C-17 aircraft for air movement.

2. MOTORCYCLE, MILITARY, 2-WHEEL:

a. TAMCN: _____

b. Model: _____

c. Purpose: Lightweight rugged commercial motorcycle modified for the military and is used as an alternate means of transporting messages, documents, and light cargo between units.

d. Height: _____

e. Length: _____

f. Width: _____

g. Weight: _____

3. TRUCK, UTILITY, CARGO/TROOP CARRIER, 1-1/4 TON, 4X4, WITHOUT WINCH, HMMWV:

a. TAMCN: _____

b. Model: _____

c. Purpose: The M998 is the baseline vehicle for the M998 series of 1-1/4 ton trucks, which are also known as the High Mobility, Multi-Purpose, Wheeled Vehicles. It is used to transport equipment, materials, crews and can carry up to eight passengers.

d. Height: _____

e. Length: _____

f. Width: _____

g. Weight: _____

4. TRUCK, UTILITY, ARMAMENT CARRIER, WITH SUPPLEMENTAL ARMOR, 1-1/4 TON, 4X4, WITHOUT WINCH, HMMWV:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: An armament carrier (with supplemental armor) model of the M998 series 1 1/4 ton variant. Intended use primarily as a weapons carrier in the Heavy Machine-gun Section, Weapons Company, Infantry Battalion.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

5. TRUCK, TOW CARRIER, WITH SUPPLIMENTAL ARMOR, 1-1/4 TON, 4X4, WITHOUT WINCH, HMMWV:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: Design to carry the Tube Launched, optically-Tracked, Wire Guided (TOW) missile carrier (with supplemental armor) model of the M998 series of the M998 series 1 1/4 ton variant. The M1045 is designed to carry the TOW Launcher, six missals and a crew of two.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

6. TRUCK, TANK, WATER SERVICE, 1,000 GALLON, 2-1/2 TON, 6X6:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose - The M50A2 is a variant of the M44 series of 2-1/2 ton trucks and is used to transport and dispense potable water in bulk quantities. The M50 has a 1,000 gallon capacity tank compartmented into two sections. The front compartment holds 400 gallons and the rear section compartment holds 600 gallons. The M50 is being phased out and replaced by the use of the sixcon refueling system.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

7. TRUCK, CARGO, DROPSIDE, 5 TON, 6X6, WITHOUT WINCH:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M813 belongs to the family of the M809 series of 5 tons trucks. It is used to transport equipment, material and or personnel. The truck has been retrofitted with Super Single 1400R20 steel belted, non-directional radial tire. This series of vehicle are standard transmissions and are being replaced with the M923 series.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

8. TRUCK, CARGO, DROPSIDE, 5 TON, 6X6, WITHOUT WINCH:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M923 is utilized to transport payloads up to 20,000 lbs (10,000 lbs cross-country) and is also used to transport passengers. A towing pintal is provided for the towing of various trailers and howitzers. This series of trucks are an automatic transmission and can be identified by the absence of the air filter on the driver side front wheel well.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

9. TRUCK, DUMP, 5 TON 6X6, WITH WINCH:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M817 dump truck is the variant of the M809 series of 5 ton trucks. The M817 operates with load limits up to 20,000 pounds (10,000 pounds cross-country).
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

10. TRUCK, WRECKER, MEDIUM, 5 TON, 6X6, WITH WINCH:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M936 wrecker is utilized to return disabled trucks for repair and to free mired trucks.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

11. POWER UNIT, FRONT, 12-1/2 TON, 4X4:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The MK48 is used primarily by combat service support motor transport units to haul supplies in large quantities from beachheads, ports, railheads, or airfields to combat service support areas. The MK48 is designed to power various LVS trailers.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

12. TRAILER, POWERED, 22-1/4 TON, CONTAINER HAULER, 4X4:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The MK14's primary mission is to transport containers, standardized cargo, shelters, and functional modules from the beach to unit supply points. It can only be used with the MK48 as it's prime mover.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

13. TRAILER, POWERED, WRECKER/RECOVERY, 4X4:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The MK15 is primarily used for recovery of all LVS vehicles, and is capable of lifting and towing the M809, M939, CUCV and HMMWV series of vehicles. It can only be used with the MK48 as it's prime mover.

- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

14. TRAILER, POWERED, FIFTH WHEEL, SEMITRAILER ADAPTER, 4X4:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: In conjunction with the MK48 as it's prime mover, the MK15's primary mission is to transport the M870 and M1000 series semitrailers.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

15. TRAILER, POWERED, 20 TON, DROPSIDE, CARGO, WITH CRANE, 4X4:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: In conjunction with the MK48 as it's prime mover, the MK17 is used to transport palletized cargo, personnel and containers. Side panels can be dropped to accomidate loading. This trailer has an organic crane that facilitate loading cargo up to 9000 lbs.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

16. TRAILER, POWERED, RIBBON BRIDGE/CONTAINER HAULER, 4X4:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: In conjunction with the MK48 as it's prime mover, the MK18 is capable of self loading and unloading the Ribbon Bridge Set (B0155) and containers through the use of hydrolic cylinders, pulleys and winches. This trailer is restricted to lifting ??? lbs without the use of external Material Handling Equipment (MHE).
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

17. CHASSIS, TRAILER, GENERAL PURPOSE, 3-1/2 TON, 2-WHEEL:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M353 is a single axle, 2-wheel, heavy duty trailer dpulled by a 5 Ton truck. Typical loads include heavy generators, air compressors and welders that do not exceed it's 7,000 lbs payload.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

18. CHASSIS, TRAILER, ¾ TON, 2 WHEEL:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M101A2is a single axle, 2-wheel, steel frame trailer designed to be towed by a ¾ ton or larger truck. It is used to transport general cargo.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

19. TRAILER, CARGO, 1-1/2 TON, 2-WHEEL:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M105A2 is a single axle, 2-wheel, trailer designed to haul payloads up to 3,000 lbs and is typically pulled by a 5 Ton as it's prime mover.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

20. TRAILER, TANK, WATER, 400 GALLON, 1-1/2 TON, 2-WHEEL:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The M149A2 transports 400 gallons of potable or nonpotable water on highways and cross-country terrian and are towed by 5 ton trucks.
- d. Height: _____
- e. Length: _____
- f. Width: _____

g. Weight: _____

21. SEMITRAILER, LOW BED, 40 TON, CONSTRUCTION EQUIPMENT TRANSPORTER:

a. TAMCN: _____

b. Model: _____

c. Purpose: The M870 40 ton trailer is a 6-wheel, tandem axle, dual-tire semi-trailer with a heavy-duty steel frame and a flat wooden cargo bed. It is used to haul construction equipment and materials. The M870 must be connected to the MK16 Fifth Wheel which must be attached to a MK48 Power Unit as it's prime mover. All three components must be requested for a functional unit.

d. Height: _____

e. Length: _____

f. Width: _____

g. Weight: _____

22. ROUGH TERRAIN CONTAINER HANDLER (RTCH):

a. TAMCN: _____

b. Purpose: The RTCH is designed to move containers at the beach, port, or airfield. The RTCH is capable of lifting 50,000 lb container.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____

23. AIR MOBILITY CRANE, ROUGH TERRAIN, HYDRAULIC, LIGHT:

a. TAMCN: _____

b. Purpose - Used for general material handling, construction tasks, and aviation support. Capable of operating in rough terrain lifting up to 7.5 tons.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____

24. CRANE, HIGH SPEED, HIGH MOBILITY:

a. TAMCN: _____

b. Purpose: Used for general loading and unloading of ships and trucks. Also used in construction. Capable of operating in rough terrain lifting up to 25 tons.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

25. EXCAVATOR, COMBAT, M9 ARMORED COMBAT EARTHMOVER (ACE):

- a. TAMCN: _____
- b. Purpose: The Armored Combat Excavator is a highly mobile, full tracked, armored earthmover capable of supporting the maneuver element in offensive and defensive operations. It accomplishes critical combat engineer tasks such as preparing hull defilade fighting positions for guns and tanks and other critical battlefield systems. Capable of speeds up to 30 mph on land and 3 mph in water.
- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

26. GENERATOR SET, 60 KW, 60 HZ, MOBILE LOADED:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The MEP-006A (Mobile Electric Power) is a portable, self-contained unit. It is capable of putting out 60KW of power as a single unit or in parallel with up to 2 other units. Transportation configuration facilitate skid mounting or mounting on a M353 trailer.
- d. Height: _____
- e. Length: _____
- f. Width: _____
- g. Weight: _____

27. GENERATOR SET, 100 KW, 60 MZ, MOBILE LOADED:

- a. TAMCN: _____
- b. Model: _____
- c. Purpose: The MEP-007A is a also a portable, self-contained unit. It is capable of putting out 100KW of power and is designed to accept a variety of kits to extend its capabilities. Transportation configuration facilitate skid mounting or mounting on a M353 trailer.
- d. Height: _____
- e. Length: _____
- f. Width: _____

g. Weight: _____

28. MOTORIZED ROAD GRADER:

a. TAMCN: _____

b. Purpose: The motorized road grader is a self-propelled grading machine powered by a diesel engine. It is rubber-tired, four-wheel drive, and has an articulated frame and front wheel design. Primarily used for building and maintaining roads and airfields.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____

29. PUMP MODULE, FUEL (SIXCON); PUMP MODULE WATER (SIXCON):

a. TAMCN: _____(FUEL), _____(WATER)

b. Purpose: The pump module provides the capability to pump up to 5,000 gallons in a single module. The pump module is a component of the SIXCON system. Five storage modules can be accompanied in the construction to a single pump to form an ISO/ANSI configured 8 x 8 x 20 foot module which can be lifted by helicopter or transported by truck.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____ Fuel pump

g. Weight: _____ Water pump

30. STORAGE MODULE, FUEL (SIXCON); STORAGE MODULE WATER (SIXCON)

a. TAMCN: _____(FUEL), _____(WATER)

b. Purpose: The storage module provides the capability to store, and transport up to 900 gallons in a single module. The storage module is a component of the SIXCON system. Five storage modules can be accompanied in the construction to a single pump to form an ISO/ANSI configured 8 x 8 x 20 foot module which can be lifted by helicopter or transported by truck.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____ (empty)

g. Weight: _____ (W/WTR)

h. Weight: _____ (W/Fuel)

31. SCRAPER-TRACTOR:

a. TAMCN: _____

b. Purpose: The tractor is an open bowl, pneumatic-tired, 2-axle with 14-18 cubic yard capacity. It is employed by engineer units in earth moving operations in the main battle area.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____

32. TRACTOR, MEDIUM, FULL TRACKED:

a. TAMCN: _____

b. Model: _____

c. Purpose: The D7 tractor is diesel-powered, full tracked, medium size used for earth moving and construction.

d. Height: _____

e. Length: _____

f. Width: _____

g. Weight: _____

33. TRACTOR, ALL WHEEL DRIVE W/ATTACHMENTS:

a. TAMCN: _____

b. Purpose: This tractor is lightweight rubber-tired diesel-powered equipped with a front end loader and back hoe. It is capable of rapidly excavating a variety of holes, pits, and trenches.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____

34. TRUCK, FORKLIFT, ROUGH TERRAIN:

a. TAMCN: _____

b. Purpose: The RT4000 is designed to stuff and unstuff containers it is capable of lifting 4,000 lbs.

c. Height: _____

d. Length: _____

e. Width: _____

f. Weight: _____

35. TRACTOR, RUBBER-TIRED, ARTICULATED STEERING, MULTI-PURPOSE (TRAM):

- a. TAMCN: _____
- b. Purpose: The tram has articulated steering and is capable of operating in rough terrain and in 60 inches of water and is capable of lifting 10,000 lbs. The TRAM is outfitted with small forks and a 2-1/2 yard bucket.
- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

36. TRUCK, FORKLIFT, EXTENDABLE BOOM (EBFL):

- a. TAMCN: _____
- b. Purpose: The Extended Boom Forklift (EBFL) is designed to load containers and is capable of lifting 10,000 lbs.
- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

37. FRONT OPENING 20-FOOT ISO CONTAINER:

- a. TAMCN: _____
- b. Purpose: The commercial 20-foot end-opening container can be used to transport munitions or general cargo. The door-end corner posts are modified with angle iron to enhance blocking and bracing. As there is no permanent restraint system, wooden blocking and bracing is used to restrain munitions.
- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____-_____
- g. Payload: _____-_____

38. SIDE OPENING 20-FOOT ISO CONTAINER:

- a. TAMCN: _____
- b. Purpose: The twenty-foot side-opening containers are owned by the Department of Defense and are also available through commercial sources. They are ISO containers with two double doors located on one side. The

military often uses side-opening containers for transporting munitions.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____
- g. Payload: _____

39. MOBILE FACILITY VAN (MF VAN):

- a. TAMCN: _____
- b. Purpose: The basic mobile facility is an insulated shelter 8-feet high, 8-feet wide, and 20-feet long that is transportable by sea, land, and air. Features include two removable doors and removable panel on one side for environmental control. Power entry and power transfer panels are installed with 120/208 volt, 3 phase, 100amp connectors for both 60Hz and 400Hz service. Adding items such as workbenches, cabinets, shelves, and other peculiar support equipment can further configure the basic MF van. Many of these MF vans can be connected together to build hospitals, or maintenance facilities.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____ (shell)
- g. Payload: _____ (varies from model to model)

40. INTERNAL AIRLIFT CONTAINER UNIT (ISU-90):

- a. TAMCN: _____
- b. Purpose: The ISU containers provide weather-resistant storage and transport but do not meet ISO structural standards. International Convention for Safe Containers (CSC) restrictions do not apply to containers specially designed for air transport; however they are certified for internal or external helicopter transport and for all Air Mobility Command (AMC) transport aircraft.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____ - _____
- g. Payload: _____

41. PALCON:

- a. TAMCN: _____

b. Purpose: The PALCON is a palletized container that provides a weatherproof, reusable container that can be arranged into a "cube shaped" configuration for easy storage and movement of supplies on the standardized motor transport vehicle (5-ton truck, LVS). The PALCON is also compatible with the Air Force's 463L pallet system. The PALCON is intended as a replacement for the standard 50-cube wooden box, offering better security for unit cargo.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____
- g. Payload: _____

42. QUADCON:

a. TAMCN: _____

b. Purpose: The QUADCON is one quarter the size of a 20" ISO container with ISO corner fittings to allow for coupling the quadcon into arrays of up to four units. An array of four QUADCONS has the same external length and width dimensions as a 20-foot ISO container and is designed to be lifted as a 20" unit. The QUADCON stores and moves organizational property as well as consumable supplies.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____
- g. Payload: _____

43. MARINE CORPS EXPEDITIONARY SHELTER SYSTEM(MCESS):

a. TAMCN: _____

b. Purpose: These multiple-use facilities can be used as support facilities for medical, communications, messing, air control, or operations centers.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____
- g. Payload: Varies

44. K-4 ORDANCE TRAILER:

a. TAMCN: _____

b. Purpose: The trailer is a four wheeled, towable,

flat bed unit constructed of light weight aluminum. The bed sections are removable to facilitate loading and unloading of transported weapons. Removable side and end racks are provided for retaining cargo. The trailer is equipped with tie down bars and straps for use in handling weapons cradles, and stacking frames. The K-4 trailer has a maximum load of 8000lbs. The trailer may be towed in trains, not to exceed two.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____
- g. Payload: _____

45. NC-10C:

- a. TAMCN: _____
- b. Purpose: The power plant is self-contained, requiring no external electrical or mechanical sources of power. Maximum towing speed is 20 MPH. Rated efficiency of the power plant is not affected by operation on an incline of 15 degrees maximum in any direction from the horizontal or under an ambient temperature range of 18F to 122F and under relative humidity up to 100 percent. The plant will operate efficiently at altitudes ranging from sea level to 8,000 feet. Unit has two AC output cables and one DC output cable each measuring 30 feet on separate spring return reels.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

46. PORTABLE AIR COMPRESSOR/ACU-20/M:

- a. TAMCN: _____
- b. Purpose: Its purpose is to provide 160 cubic feet per minute of compressed air at 100 PSI for various maintenance applications. It consists of an enclosed compartment housing a diesel engine and air compressor mounted on two wheels with a towbar for transporting. It is also equipped with tie downs and forklift receptacles for transportation. The unit contains it's own fuel, lubrication, and ether start systems, and is designed to perform for a minimum of eight operating hours in tempertures ranging from 25F to 125F. A capacity control

system can be adjusted for air pressures between 85 and 125 PSI.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____ (empty), _____ (gross)

47. AIR LAUNCHED WEAPONS LOADER A/S32K-1D:

- a. TAMCN: _____
- b. Purpose: The loader is a self propelled hydraulic lift with a cantilever boom supporting an articulated head. Fork lifting assemblies and rollers are mounted on the manipulator head assembly to enable loader to fulfill its mission. The purpose of the loader is to load aerial stores on the wing racks and centerline pylons of various tactical aircraft. The loaders primary mission is to lift, carry and attach externally carried munition weapons, JATO bottles, ammunition cans, rockets and fuel tanks weighing up to 4500 pounds, singly or in a pre-packaged multiple ejection configuration. Maximum speed is 10mph.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

48. JET ENGINE CORROSION CART:

- a. TAMCN: _____
- b. Purpose: The corrosion control cart is a trailer mounted self-contained mobile unit that provides a convenient and safe method of applying fresh water as a rinsing agent and a preservative compound under a low pressure spray action to aircraft jet engines subjected to environmental conditions contributing to the corrosion of the internal rotating components. The corrosion control cart is designed for shipboard and shore based operations.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____ (dry)

49. PORTABLE HYDRAULIC POWER SUPPLY A/M27T-7:

- a. TAMCN: _____
- b. Purpose: The portable hydraulic power supply is a

single system hydraulic pumping unit with a rated capacity of 20GPM at 5000PSI. The power supply is a self-contained unit designed to check performance and operating characteristics of aircraft hydraulic systems. It is capable of delivering hydraulic fluid at controlled pressures to operate aircraft hydraulic systems without the necessity of starting the aircraft engine.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

50. NITROGEN SERVICING UNIT:

- a. TAMCN: _____
- b. Purpose: The nitrogen servicing unit consists of a welded frame mounted on a two-wheel axle and equipped with a retractable swivel caster. Six nitrogen cylinders in two sets of three with a tool box in between, and a control panel consisting of a purifier, filter, regulator, valves, guages, and plumbing, make up the rest of the unit. The nitrogen servcing unit provides a mobile source of compressed nitrogen to recharge aircraft nitrogen systems such as accumulators, structs and high pressure tires.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

51. AIRCRAFT TOW TRACTOR A/S32A-30A:

- a. TAMCN: _____
- b. Purpose: The tow tractor is a self-propelled, engine driven unit designed for towing loads in warehouses and other suitable areas. The towing pintle or coupler may be attached on the rear or front of the tractor. The tractor is a conventional automotive vehicle powered by an internal combustion engine. Maximum towing capacity is 40,000lbs. Fuel for the tractor is diesel or JP5.

- c. Height: _____
- d. Length: _____
- e. Width: _____
- f. Weight: _____

52. M1A1 TANK(E1888): The M1 tank was built by General Dynamics which began delivering the M1's in the 1980's. It is powered by a gas-turbine. The main gun is a 120mm

smooth bore gun. Mounted coaxially to the right of the main armament is a 7.62mm M240 machine gun. Mounted at the commander's station is a standard 12.7mm (0.50) Browning M2 HB machine gun which can be aimed and fired from inside the tank. The weight of an M1 tank combat loaded exceeds 70 tons.

53. LAV(E0947): The LAV is an eight wheeled vehicle capable of land speeds in excess of 55mph. The LAV's main gun is a 25mm machine gun that fires anti-armor rounds capable of penetrating enemy armor. The LAV comes in different variants to include TOW missile and Stinger capable versions.

54. M198 HOWITZER(E0665): The M198 howitzer is employed by the artillery battalion. It is towed by a 5 ton truck and has a range in excess of 18 miles.

55. AAV(E0846): The Amphibious Assault Vehicle is a fully-tracked vehicle. It has a crew of 3 and can carry 25 combat Marines. Cruising speed on land is 25 mph and 8 mph in water. The AAV weighs in at 52,770 pounds combat loaded.

REFERENCES:

1. Motor Transport Technical Characteristics Manual TM 11240-15/4B.
2. Principle Technical Characteristics of U.S. Marine Corps Engineer Equipment TM 11275-15/3C.
3. USMC Containers and Aviation Ground Support Extract.